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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/560,121 04/28/00 MERRITT

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EXAMINER

KIM, T

ART UNIT

PAPER NUMBER

2816

DATE MAILED:

10/16/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/560,121

Applicant(s)

MERRITT, TODD A.

Examiner

Jung Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-25,27,30,32 and 34-41 is/are allowed.
- 6) ☒ Claim(s) 1,2,26,28,29,31 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Amendment A filed 9-20-01 has been considered, but the arguments filed therein with respect to the rejection of claims 1,26,28,29,31 and 33 over Merritt (U.S. Patent No. 5,677,645) have not been found persuasive. The rejection stands.

Claim Rejections - 35 USC § 112

Claims 1-2,26,28,29,31 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With respect to claims 1,26,28,29,31 and 33, the “pre-boot pre-charge capacitors” (474 and 476 in Fig. 4) “coupled between” the “main pump capacitors” (486 and 492) and the “preboot capacitors” (462 and 464) is misdescriptive of the invention. To be “coupled between,” the pre-boot pre-charge capacitors needs to be serially connected between the main capacitors and the preboot capacitors. However, the pre-boot pre-charge capacitors 474,476 are not serially connected between the main capacitors and the preboot capacitors as to be “coupled between” them. Rather, the pre-boot pre-charge capacitors 474,476 are coupled to intervening nodes between the main capacitors (486 and 492) and the preboot capacitors (462 and 464). Claim 2 is rejected for including the same deficiency of claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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In light of indefiniteness pointed out above, under the broadest reasonable interpretation, the phrase “pre-charge capacitors coupled between the... main pump capacitors and the... preboot capacitors” in claims 1,26,28,29,31 and 33 is given a patentable weight to mean that the pre-charge capacitors are connected to intervening nodes between the main pump capacitors and the preboot capacitors.

Claims 1 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Merritt (U.S. Patent No. 5,677,645). With respect to claims 1 and 26, Merritt discloses in Fig. 2 a circuit comprising: a plurality of phase generators 122,144,146,132; first and second preboot capacitors 148,150 coupled to the phase generators; first and second main pump capacitors 138,141 coupled to the phase generators and the first and second preboot capacitors; and first and second gating devices 134,136 coupled to the main pump capacitors. In light of indefiniteness, first and second pre-boot pre-charge capacitors (164 and 166) coupled to the intervening nodes (“C” and “D”) between the main pump capacitors (138 and 141) and the preboot capacitors (148 and 150) are shown, wherein 164 and 166 are coupled to the nodes C and D when transistors 156 and 158 are on, as called for in claims 1 and 26.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28-29 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merritt. With respect to claims 28-29 and 33, Merritt discloses in Fig. 2 a memory device

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(charge pump for memory) comprising a plurality of phase generators 122,144,146,132, first and second preboot capacitors 148,150 coupled to the phase generators and first and second main pump capacitors 138,141. In light of indefiniteness, first and second pre-boot pre-charge capacitors (164 and 166) coupled to the intervening nodes (“C” and “D”) between the main pump capacitors (138 and 141) and the preboot capacitors (148 and 150) are shown, wherein 164 and 166 are coupled to the nodes C and D when transistors 156 and 158 are on, as called for in claims 1 and 26.

Merritt fails to disclose that the memory device (charge pump for memory) is formed on a substrate and used along with controller, command and data links. However, it is notoriously well known in the art that charge pumps for memory such as the Fig. 2 circuit of Merritt are formed on a substrate and are used with controller, command and data links. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to form the charge pump memory device of Merritt on a substrate and use it in conjunction with controller, command and data links because such use of charge pump in a memory environment is notoriously well known implementation of a charge pump and the charge pump of Merritt needs a physical implementation, as called for in claims 28-29 and 33.

Response to Arguments

With respect to the rejection of claims 1,26,28,29,31 and 33 over Merritt (U.S. Patent No. 5,677,645), Applicant argues that Merritt fails to show the newly added limitation of having “first and second pre-boot pre-charge capacitors coupled between the first and second main pump capacitors and the first and second preboot capacitors.” However, as explained above, the

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limitation is met by Merritt. Therefore, the rejection of claims 1,26,28,29,31 and 33 over Merritt stands.

Conclusion

Claims 3-25,27,30,32 and 34-41 are allowed.

Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Kim whose telephone number is 703-305-7242. The examiner can normally be reached on M-F, 9am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Jung Kim
Primary Examiner
Art Unit 2816

JK
October 12, 2001